

CLAIMS:

1. A pivoting optical device, comprising:
 - a first part,
 - a second part provided with optical means and pivotally movable relative to the first part about a first pivot axis, said optical means defining an optical laser beam path in the general longitudinal direction of the second part,
 - bearing means comprising the first pivot axis,
 - a point laser source fixedly connected to the first part for providing a laser beam in the general direction of said second part,wherein:
 - the laser source is located in said optical laser beam path in the general longitudinal direction of the second part, and
 - the bearing means presents an open center region so as to allow a laser beam to pass from the laser source to the second pivotally movable part.
2. A pivoting optical device according to claim 1, wherein the second part is also pivotally movable relative to the first part about a second pivot axis substantially orthogonally intersecting the first pivot axis at a point of intersection, the laser source being located at the point of intersection of said intersecting first and second pivoting axes
3. A pivoting optical device according to claim 2, wherein the bearing means is of the gimbal type, comprising an intermediate bearing element which is pivotally supported by the first part and which in its turn pivotally supports the second part, said point of intersection being located at the center of the intermediate bearing element.
4. A pivoting optical device according to claim 2 or 3, wherein:
 - the laser source is a semiconductor diode laser unit of a type known per se exhibiting a far field radiation pattern in a generally transverse cross-section of the radiation beam of generally oblong shape, with a major pattern axis and an orthogonal minor pattern axis, and

- wherein the semiconductor laser diode is arranged such that the major pattern axis is generally parallel to one of the first and second axes, and the minor pattern axis is generally parallel to the other one of the first and second axes.

- 5 5. A pivoting optical device according to any of claims 2-4, wherein said optical means of the second part comprises optical collimating means at the point of entry of a radiation beam emitted by the laser source into the second part.
- 10 6. A pivoting optical device according to claims 4-5, wherein the collimating means is wholly positioned within the generally oblong far field pattern of the semiconductor diode laser in all operational pivotal positions of the second part.
- 15 7. A pivoting optical device according to claims 4-6, wherein the pivoting optical device is a swing arm device for supporting an optical focusing unit near its free end for reading/recording information from/into an information surface of an optical disc disposed in an optical disc apparatus, the second part being a rigid swing arm for performing pivotal scanning movements about a swing axis and for performing pivotal focusing movements about a focusing axis that substantially orthogonally intersects the swing axis so as to move an optical pickup unit in mutually substantially orthogonal scanning and focusing directions, respectively, relative to the information surface of the optical information disc, and wherein:
- 20 - the major pattern axis of the far field pattern is generally parallel to the focusing axis, and
- the minor pattern axis of the far field pattern is generally parallel to the swing axis.